

Appl. No. 10/510,900; Docket No. NL02 0278US
Amdt. dated August 22, 2005
Office Action Response

Amendments to the Claims

1. *(Previously Presented)* A semiconductor device provided with a circuit, a security layer that covers the circuit, a security element comprising a local area of the security layer, and a sensor, characterized in that:
 - the security layer comprises embedded magnetic particles, and
 - the sensor is a magnetic sensor, capable of measuring of a magnetic property of the security layer.
2. *(Original)* A semiconductor device as claimed in Claim 1, characterized in that the magnetic sensor is a magnetoresistive sensor, capable of converting the magnetic properties into an actual value of the impedance.
3. *(Currently Amended)* A semiconductor device as claimed in Claim 1, characterized in that the embedded magnetic particles are distributed inhomogeneously in the security layer (S3) over the circuit.
4. *(Original)* A semiconductor device as claimed in Claim 1, characterized in that the magnetic particles are superparamagnetic particles embedded in microbeads.
5. *(Original)* A semiconductor device as claimed in Claim 1, characterized in that the magnetic particles comprise a hard-magnetic material.
6. *(Original)* A semiconductor device as claimed in Claim 2, characterized in that the magnetoresistive sensors having an axis of sensitivity substantially parallel to the security layer are shaped as stripes that have a length in a direction substantially perpendicular to the axis of sensitivity.
7. *(Original)* A semiconductor device as claimed in Claim 1, further provided with a memory for storing an initial actual value of the impedance of the security element as a reference value.

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8. (*Previously Presented*) A carrier provided with a semiconductor device as claimed in claim 1.

9. (*Original*) A card reader suitable for a carrier as claimed in Claim 8, characterized in that magnetization means are present in order to generate an external magnetic field that will induce a magnetization in the magnetic particles substantially perpendicular to the security layer.

10. (*Original*) A card reader as claimed in Claim 9, characterized in that a reference sensor is present for measuring the external magnetic field, so that the external magnetic field can be calibrated.

11. (*Original*) A card reader as claimed in Claim 9, characterized in that the magnetization means are part of a degaussing circuit.

Claims 12–18 (*Cancelled*)